

# Employment Status and Occupations of Gulf War-Era Veterans

## American Community Survey Briefs

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### INTRODUCTION

The focus of this analysis is on veterans who served on active duty in the U.S. Armed Forces only from August 1990 or later.<sup>1</sup>

Gulf War-era veterans who served since 1990 are the most recent cohort of wartime veterans and make up about 35 percent of the current working-age veteran population (see Figure 1).<sup>2</sup> They are also a large and growing segment of the veteran population, making them a cohort of particular interest, but about which minimal economic research has been done. Much of the past research on post-military economic outcomes of wartime veterans focused on Vietnam-era and World War II veterans. Very few, if any, World War II and Korean War veterans are still in the labor force—none are in the working-age population defined here—and the majority of the Vietnam-era veterans are nearing retirement age.

Veterans who entered the Armed Forces after 1990 also had a substantially different military experience than their predecessors. During the 1990s, significant changes in legislation and policy opened up over 80 percent of the services' career positions to military servicewomen. The nature of the wars in Afghanistan and Iraq also changed the kind of work done by men and women in the Armed Forces. The occupational experiences of Gulf War-era veterans while in the military could be expected to have some impact on the kinds of occupations they hold once they leave the military.

<sup>1</sup> According to Title 38, U.S. Code, the Gulf War refers to the entire period beginning on August 2, 1990, and ending "on the date thereafter prescribed by Presidential proclamation or by law."

<sup>2</sup> In this analysis, "working-age" refers to the population 18 to 64 years old.

### GULF WAR-ERA VETERANS

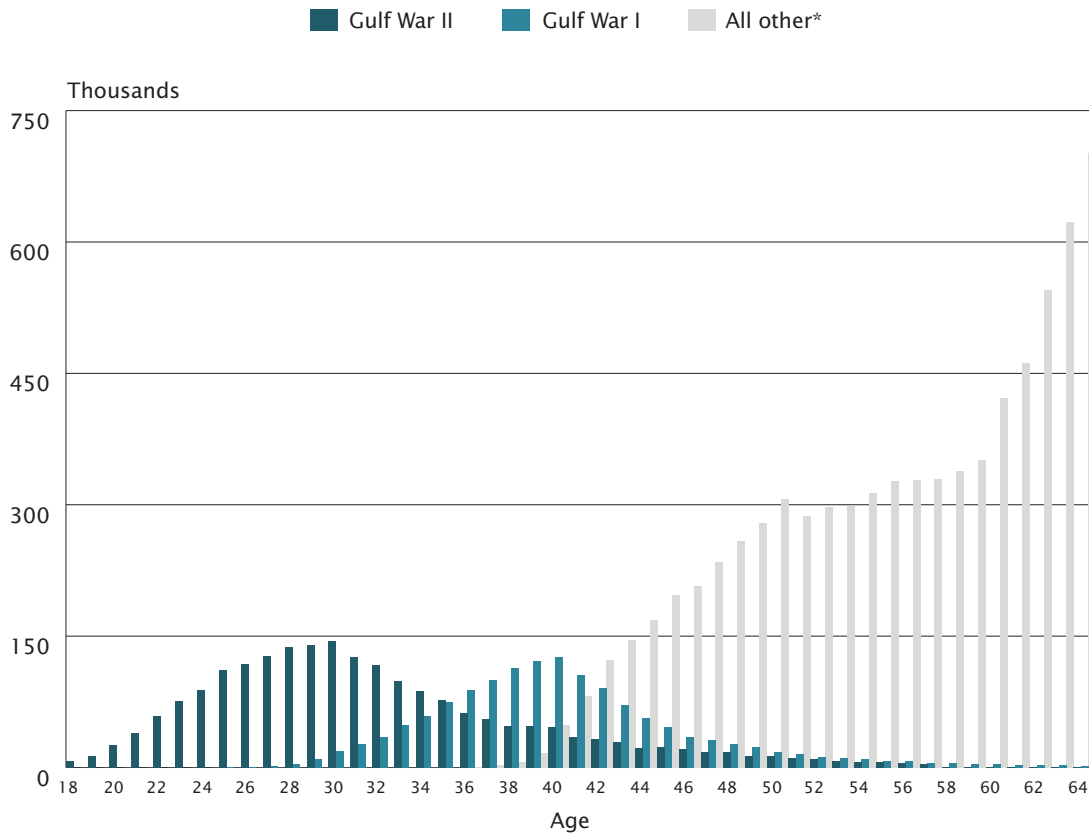
A **veteran** is defined as an individual who has served (even for a short time), but is not now serving, on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard.

The **Gulf War Era** is defined by two distinct periods on the ACS questionnaire (see Figure 9). Veterans in this analysis are classified in their most recent wartime period. Veterans who only served in the period "August 1990 to August 2001" are considered **Gulf War I** veterans for this analysis. Veterans who served "September 2001 or later" only or in both "August 1990 to August 2001" and "September 2001 or later" are considered **Gulf War II** veterans for this analysis. Veterans who served in either period but also in some earlier period are Gulf War veterans, but were not included in this analysis because they entered the military prior to August 1990. The ACS period of military service question only captures time in service, not place. The veterans who served in the Armed Forces after August 1990 are considered "Gulf War-era" even if they did not serve in the Persian Gulf region.

The data used in this report are from 2011–2013 American Community Survey (ACS) 3-year estimates. This report presents data on the employment situation of noninstitutionalized post-1990 Gulf War-era veterans, 18 to 64 years old, living in the United States. Where appropriate, noninstitutionalized nonveterans 18 to 64 years old are included as a reference group.

Figure 1.

### Working-Age Veteran Population by Period of Service



\*All other includes Gulf War-era who also served in peacetime prior to 1990, Vietnam-era, and peace-time only veterans.

Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

There are numerous reasons why veterans and nonveterans have disparate economic outcomes: age, race and Hispanic origin, education, citizenship, and selectivity bias of those pursuing military service being a few.<sup>3</sup> These differences and the interactions between these characteristics are not fully explored in this report. However, nonveterans are shown to offer some perspective for this unique population of veterans.

### DESCRIPTION OF GULF WAR-ERA VETERANS

The Gulf War I cohort of veterans is a predominantly stable population (see Figure 2). Because the definition used in this analysis classifies veterans in their most recent period of service, all Gulf War I veterans would have left the military prior to September 11, 2001. In contrast, the Gulf War II cohort is still growing each year as service members transition to veterans.

Since the beginning of the All Volunteer Force, which began in 1973, the number of women serving in the military has risen dramatically. Women make up a

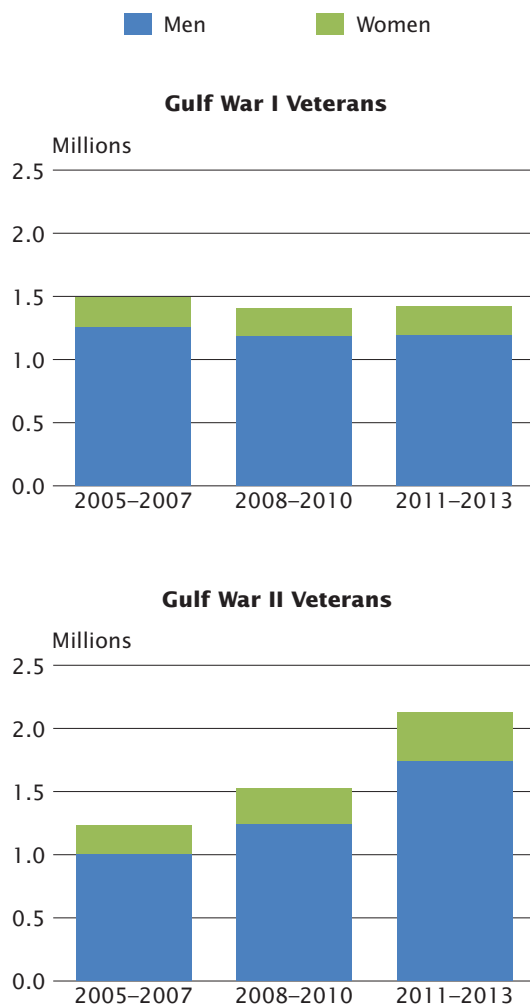
larger share of the Gulf War-era cohorts than any previous wartime cohorts. About 16 percent of Gulf War I veterans and 19 percent of Gulf War II veterans were women in 2011–2013.

Gulf War I veterans, by definition, are nearly a decade older than Gulf War II veterans (see Table 1). The median age of working-age Gulf War I men in 2011–2013 was 40.1 years, compared with 30.9 years for Gulf War II men. For women, the median ages were 39.7 years and 30.7 years, respectively. Because the Gulf War I cohort is stable at this point, these veterans are aging as a group. For Gulf War II, on the other hand, there is a constant

<sup>3</sup> Alfred O. Gottschalck and Kelly A. Holder, "We Want You! The Role of Human Capital in Explaining the Veteran-Non Veteran Earnings Differential" (working paper, U.S. Census Bureau, February 23, 2009).

Figure 2.

## Total Population of Gulf War-Era Veterans 18 to 64 Years Old by Sex



Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2005-2007, 2008-2010, and 2011-2013.

inflow of new, relatively young veterans entering this population every year. Gulf War I men were also older than nonveteran men of working age (40.1 years compared with 39.7 years). For women, nonveterans were the oldest group with a median age of 41.6 years.

A higher percentage of Gulf War I men were White, non-Hispanic (69.1 percent) in 2011-2013, compared with Gulf War II and nonveteran

men (67.8 percent and 62.8 percent, respectively). Gulf War I men were also more likely to be Black, non-Hispanic and less likely to be Hispanic, compared with Gulf War II and nonveteran men.

Gulf War-era female veterans were more racially diverse than nonveteran women. About a quarter of Gulf War I and Gulf War II women were Black, non-Hispanic, compared with 12.9 percent of

nonveteran women.<sup>4</sup> A higher percentage of nonveteran women were Hispanic than both cohorts of Gulf War women (15.9 percent compared with 9.2 percent and 13.7 percent, respectively).

Gulf War-era men and women had higher educational attainment than nonveteran men and women 18 to 64 years old. Nearly half had completed some college education but no degree, however, male veterans were less likely than nonveterans to have completed a Bachelor's degree or higher. Gulf War I and Gulf War II women had the highest percentages with a Bachelor's degree or higher (36.2 percent of Gulf War I and 31.1 percent of Gulf War II) (see Table 1).

## EMPLOYMENT OF GULF WAR-ERA VETERANS

Among working-age men in 2011-2013, a higher percentage of Gulf War I male veterans (83.9 percent) were employed, compared with Gulf War II male veterans (77.9 percent). Both cohorts of Gulf War-era men were more likely to be employed than nonveteran men (74.9 percent) (see Figure 3). Gulf War I women were also more likely to be employed than their Gulf War II and nonveteran counterparts. Seventy-three percent of Gulf War I women were employed, compared with 69.1 percent of Gulf War II women and 65.1 percent of nonveteran women. Part of the difference in employment rates is likely due to age. There were no 18- to 24-year-old Gulf War I veterans. This is an age group with relatively low employment rates. There were also very few Gulf War I and Gulf War II veterans over the age of 55.

<sup>4</sup> The percentages of Gulf War I and Gulf War II women who were Black, non-Hispanic were statistically different.

Table 1.

**Characteristics of the Working-Age Population by Sex and Veteran Status**

(Civilian noninstitutionalized population 18 to 64 years old. Data based on sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see [www.census.gov/acs/www](http://www.census.gov/acs/www))

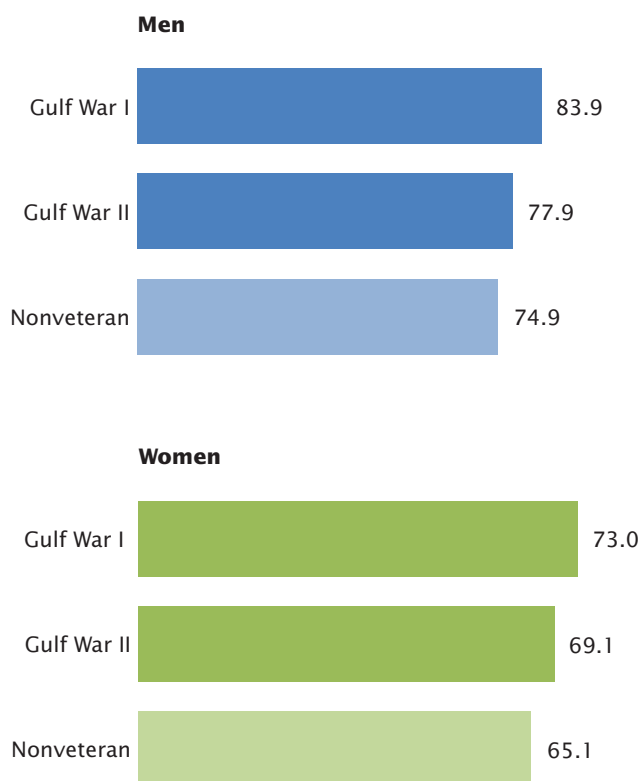
Characteristics	Men						Women					
	Gulf War I		Gulf War II		Nonveteran		Gulf War I		Gulf War II		Nonveteran	
	Estimate	Margin of error (±)	Estimate	Margin of error (±)	Estimate	Margin of error (±)	Estimate	Margin of error (±)	Estimate	Margin of error (±)	Estimate	Margin of error (±)
<b>Total population, 18 to 64 years old . . . .</b>	<b>1,189,960</b>	<b>11,050</b>	<b>1,735,900</b>	<b>13,840</b>	<b>84,959,290</b>	<b>29,530</b>	<b>235,110</b>	<b>5,830</b>	<b>394,890</b>	<b>6,260</b>	<b>97,329,300</b>	<b>18,630</b>
<b>AGE</b>												
18 to 24 years . . . . .	0	0	14.1	0.3	17.8	0.1	0	0	16.1	0.6	15.5	0.1
25 to 34 years . . . . .	13.5	0.3	56.8	0.4	22.5	0.1	18.0	0.8	56.1	0.8	21.1	0.1
35 to 44 years . . . . .	67.7	0.5	21.5	0.3	21.0	0.1	61.4	1.0	20.7	0.6	20.6	0.1
45 to 54 years . . . . .	16.0	0.3	6.7	0.2	22.0	0.1	16.4	0.8	6.1	0.3	22.6	0.1
55 to 64 years . . . . .	2.8	0.1	0.8	0.1	16.7	0.1	4.2	0.4	1.0	0.2	20.2	0.1
<b>Median age . . . . .</b>	<b>40.1</b>	<b>0.1</b>	<b>30.9</b>	<b>0.1</b>	<b>39.7</b>	<b>0.1</b>	<b>39.7</b>	<b>0.1</b>	<b>30.7</b>	<b>0.1</b>	<b>41.6</b>	<b>0.1</b>
<b>RACE AND HISPANIC ORIGIN</b>												
White, non-Hispanic . . . . .	69.1	0.5	67.8	0.4	62.8	0.1	59.2	1.0	55.0	1.0	62.8	0.1
Black, non-Hispanic . . . . .	15.8	0.3	13.2	0.3	11.1	0.1	25.2	1.1	23.2	0.8	12.9	0.1
Asian, non-Hispanic . . . . .	2.0	0.1	2.6	0.1	5.6	0.1	1.9	0.3	2.9	0.2	5.7	0.1
Other, non-Hispanic . . . . .	3.1	0.2	3.6	0.1	2.5	0.1	4.5	0.4	5.3	0.4	2.7	0.1
Hispanic . . . . .	10.1	0.3	12.8	0.3	18.0	0.1	9.2	0.7	13.7	0.6	15.9	0.1
<b>EDUCATIONAL ATTAINMENT</b>												
High school graduate or less . . . . .	29.3	0.4	26.6	0.3	43.6	0.1	14.7	0.8	15.9	0.6	36.3	0.1
Some college . . . . .	46.2	0.4	51.9	0.4	29.9	0.1	49.1	1.2	53.0	0.7	34.8	0.1
Bachelor's degree . . . . .	16.7	0.3	15.1	0.2	17.4	0.1	23.5	0.9	20.9	0.7	19.0	0.1
Advanced degree . . . . .	7.8	0.3	6.4	0.2	9.1	0.1	12.7	0.7	10.3	0.5	10.0	0.1
<b>CITIZENSHIP STATUS</b>												
Native or naturalized citizen . . . . .	98.9	0.1	99.1	0.1	88.8	0.1	99.1	0.2	99.2	0.1	90.8	0.1
Noncitizen . . . . .	1.1	0.1	0.9	0.1	11.2	0.1	0.9	0.2	0.8	0.1	9.2	0.1
<b>DISABILITY STATUS</b>												
Has one or more disabilities . . . . .	9.6	0.3	10.5	0.2	9.6	0.1	10.6	0.6	8.5	0.4	10.0	0.1
No disability . . . . .	90.4	0.3	89.5	0.2	90.4	0.1	89.4	0.6	91.5	0.4	90.0	0.1
<b>EMPLOYMENT STATUS</b>												
Employed . . . . .	83.9	0.3	77.9	0.4	74.9	0.1	73.0	0.9	69.1	0.8	65.1	0.1
Nonemployed <sup>1</sup> . . . . .	16.1	0.3	22.1	0.4	25.1	0.1	27.0	0.9	30.9	0.8	34.9	0.1

<sup>1</sup> "Nonemployed" includes individuals who were either unemployed or not in the labor force.

Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

Figure 3.

### Percentage of the Population 18 to 64 Years Old Who Were Employed by Veteran Status and Sex



Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

## CHARACTERISTICS OF THE EMPLOYED AND NONEMPLOYED POPULATIONS

Individuals who were either unemployed or not in the labor force at all were classified as “nonemployed” in order to examine how their characteristics differed from those of the employed population.<sup>5</sup> Unemployed individuals are not currently working, but are actively looking for a job while those who are not in the labor force

<sup>5</sup> It is not possible with these data to determine if any of these characteristics are the actual reasons a person is not working, but they may suggest some indication.

are typically not actively looking for work.<sup>6</sup> The purpose of this section is to compare how those veterans (and nonveterans) with a job compare with those without one, regardless of their job search activity. About three-quarters of the “nonemployed” population were not actively seeking employment in the 2011–2013 period.

For Gulf War II men and nonveteran men, as well as Gulf War II women, the nonemployed population was younger than their employed counterparts (see Table 2). This

<sup>6</sup> The “not in labor force” category consists mainly of students, retired workers, and those otherwise unavailable or unable to work.

was not the case for Gulf War I men and nonveteran women, where the employed population was younger than the nonemployed population.

Individuals may choose not to participate in the labor force because they are enrolled in school. In 2011–2013, a higher percentage of nonemployed Gulf War-era veterans, as well as nonveterans were enrolled in school, compared to their employed counterparts. Not surprisingly, nonemployed Gulf War II veterans, both men and women, had the highest percentages who were enrolled in school (39.9 percent and 42.9 percent, respectively). Gulf War II veterans were the youngest population in the analysis. The Gulf War II cohort may also be enrolling in school at higher rates because of the Post 9/11 G.I. Bill, which took effect in August 2009.<sup>7</sup>

The employed population, for Gulf War I and Gulf War II veterans and nonveterans, was more likely to have higher educational attainment than the nonemployed population (see Figure 4). In general, those with higher educational attainment are typically less likely to be unemployed (part of the nonemployed population). This may be because those with a college degree are able to hold a broader range of jobs in more occupations and industries than those with less education.<sup>8</sup>

The disability status of an individual may also be a factor in labor force participation and employment. For all groups, a higher percentage of the nonemployed population had one or more disabilities in 2011–2013, compared with the

<sup>7</sup> For more information about the Post-9/11 G.I. Bill educational benefits, see <[www.benefits.va.gov/gibill/post911\\_gibill.asp](http://www.benefits.va.gov/gibill/post911_gibill.asp)>.

<sup>8</sup> Gary Burtless, “Trends in the Structure of the Labor Market and Unemployment: Implications for U.S. Unemployment Insurance,” Washington, DC, September 2008.

Table 2.

# **Characteristics of the Employed and Nonemployed Populations by Sex and Veteran Status**

(Civilian noninstitutionalized population 18 to 64 years old. Data based on sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see [www.census.gov/acs/www](http://www.census.gov/acs/www))

Characteristics	Men						Women					
	Gulf War I		Gulf War II		Nonveteran		Gulf War I		Gulf War II		Nonveteran	
	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed
<b>Total population, 18 to 64 years old . . .</b>	<b>998,610</b>	<b>191,350</b>	<b>1,352,740</b>	<b>383,160</b>	<b>63,655,290</b>	<b>21,304,000</b>	<b>171,530</b>	<b>63,580</b>	<b>272,740</b>	<b>122,140</b>	<b>63,323,970</b>	<b>34,005,330</b>
<b>AGE</b>												
18 to 24 years . . . . .	0	0	12.5	19.9	13.1	31.8	0	0	14.6	19.6	13.2	19.8
25 to 34 years . . . . .	13.0	16.3	56.3	58.6	24.5	16.6	17.3	20.0	54.8	58.8	22.6	18.3
35 to 44 years . . . . .	69.0	60.6	23.3	15.1	23.7	13.0	62.0	59.5	22.8	16.1	22.2	17.4
45 to 54 years . . . . .	15.6	17.6	7.0	5.4	23.7	16.9	17.0	15.0	6.8	4.5	24.5	19.0
55 to 64 years . . . . .	2.3	5.6	0.8	1.0	15.1	21.6	3.7	5.4	1.0	1.0	17.4	25.4
<b>Median age . . . . .</b>	<b>40.1</b>	<b>40.3</b>	<b>31.4</b>	<b>29.3</b>	<b>40.3</b>	<b>36.2</b>	<b>39.8</b>	<b>39.5</b>	<b>31.1</b>	<b>29.8</b>	<b>41.5</b>	<b>41.8</b>
<b>SCHOOL ENROLLMENT</b>												
Enrolled . . . . .	7.2	13.9	20.0	39.9	8.9	24.9	12.7	18.4	28.0	42.9	12.8	17.9
Not enrolled . . . . .	92.8	86.1	80.0	60.1	91.1	75.1	87.3	81.6	72.0	57.1	87.2	82.1
<b>EDUCATIONAL ATTAINMENT</b>												
High school graduate or less . . . . .	27.6	38.2	25.1	31.9	39.2	56.7	13.0	19.4	14.3	19.4	29.7	48.5
Some college . . . . .	45.9	48.0	50.8	56.0	29.6	30.6	47.2	54.5	49.7	60.5	35.7	33.0
Bachelor's degree . . . . .	18.0	10.0	16.6	9.6	20.2	9.1	25.4	18.3	23.6	14.8	22.1	13.1
Advanced degree . . . . .	8.6	3.8	7.5	2.6	11.0	3.6	14.5	7.8	12.5	5.2	12.4	5.4
<b>DISABILITY STATUS</b>												
Has one or more disabilities . . . . .	5.6	30.3	7.0	22.8	4.5	24.6	5.7	23.8	5.3	15.5	4.8	19.7
No disability . . . . .	94.4	69.7	93.0	77.2	95.5	75.4	94.3	76.2	94.7	84.5	95.2	80.3
<b>SERVICE-CONNECTED DISABILITY STATUS</b>												
Has a service-connected disability . . . . .	13.9	26.1	20.2	32.4	X	X	19.5	27.3	20.1	30.1	X	X
No service-connected disability . . . . .	86.1	73.9	79.8	67.6	X	X	80.5	72.7	79.9	69.9	X	X
<b>WORK STATUS</b>												
Less than full-time, year-round . . . . .	14.8	X	21.1	X	24.5	X	25.0	X	28.0	X	36.3	X
Full-time, year-round . . . . .	85.2	X	78.9	X	75.5	X	75.0	X	72.0	X	63.7	X
<b>WHEN LAST WORKED</b>												
Within past 12 months . . . . .	X	33.3	X	43.7	X	30.0	X	24.3	X	34.5	X	20.8
1 to 5 years ago . . . . .	X	36.4	X	37.4	X	26.7	X	36.3	X	43.9	X	26.8
Over 5 years ago or never worked . . . . .	X	30.3	X	19.0	X	43.3	X	39.4	X	21.6	X	52.4
Last job was military <sup>1</sup> . . . . .	X	1.3	X	19.3	X	X	X	0.8	X	17.1	X	X

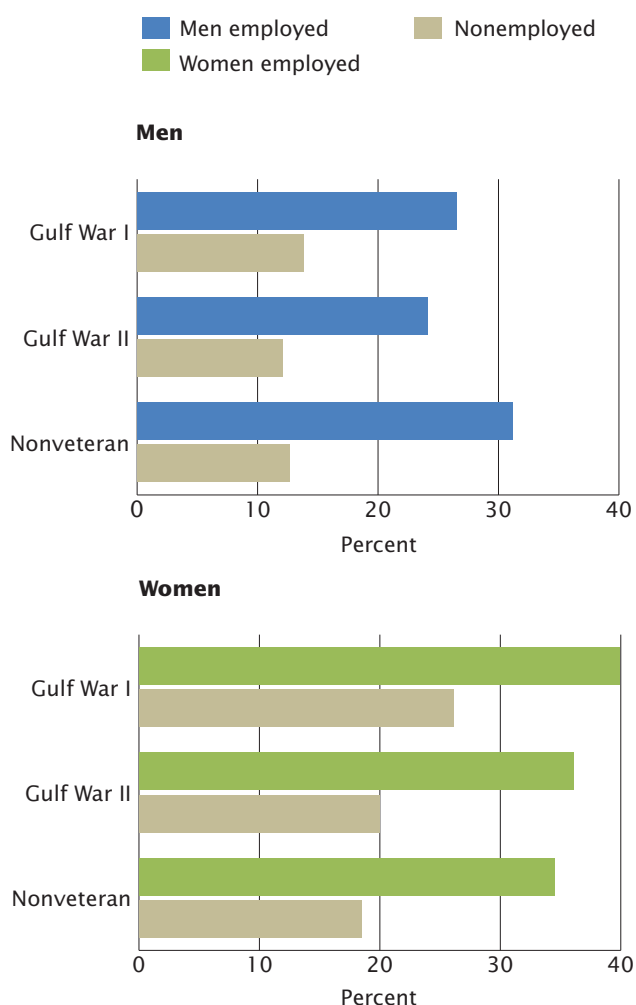
X Not applicable.

<sup>1</sup> Based on the industry of those who worked in the past 5 years.

Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

Figure 4.

### Employed and Nonemployed Populations With a Bachelor's Degree or Higher by Sex and Veteran Status



Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

employed population. Thirty percent of nonemployed Gulf War I men, the oldest cohort of men, had some disability, compared with 5.6 percent of employed Gulf War I men. About 23 percent of nonemployed Gulf War II male veterans had a disability, compared with 7.0 percent of the employed. The percentages of nonemployed Gulf War-era women with a disability were lower than those of the nonemployed Gulf War-era men, however, the pattern was the same.

A higher percentage of the nonemployed than employed women had some type of disability.

A higher percentage of nonemployed Gulf War-era veterans had a service-connected disability than their employed counterparts. A service-connected disability is an injury or illness incurred or aggravated by military service, and it does not necessarily correlate with a

disability as measured by the ACS.<sup>9</sup> Twenty-six percent of nonemployed Gulf War I men and 32.4 percent of nonemployed Gulf War II men had a service-connected disability, compared with 13.9 percent and 20.2 percent of their employed counterparts, respectively. Similarly, 27.3 percent of nonemployed Gulf War I women and 30.1 percent of nonemployed Gulf War II women had a service-connected disability, compared with about 20 percent of their employed counterparts.<sup>10</sup> Veterans with a service-connected disability receive compensation from the Department of Veterans Affairs. The amount of compensation differs by degree of disability and number of eligible dependents.

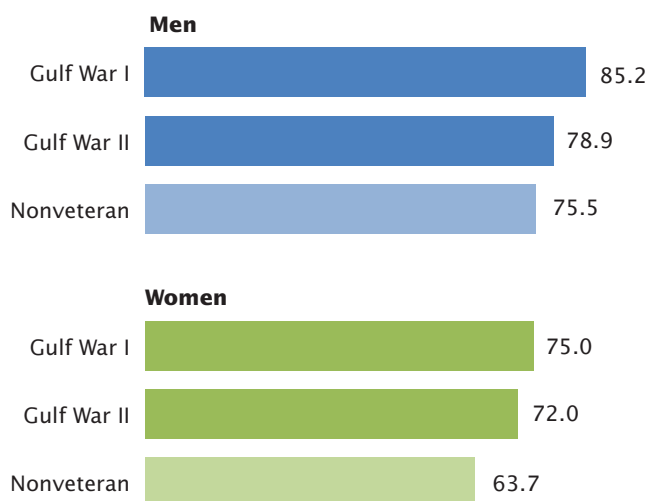
Among the employed population, a higher percentage of Gulf War I men and women were employed full-time, year-round in 2011–2013 than their Gulf War II counterparts (see Figure 5). Individuals who work full-time (35 or more hours a week) and year-round (50 to 52 weeks a year) are likely to be working in more permanent, or career, jobs than those working part-time or part-year. The gap between Gulf War I and Gulf War II who worked full-time, year-round was higher for men, with a difference of 6.3 percentage points (compared with 3.0 percentage points for women).

<sup>9</sup> Veterans can receive a service-connected disability rating for a wide variety of conditions. For example, a veteran could receive disability compensation for an impairment of the knee, but his functioning and activity participation is such that he answers “No” to “Does this person have serious difficulty walking or climbing stairs?” Many veterans have more than one disability, as defined by the U.S. Department of Veterans Affairs. In these cases, a rating formula is applied to assess the overall disabling effect to determine a combined rating. Even a veteran with a service-connected disability rating of “70 percent or higher” may not report having a limitation in a function or activity on the ACS questionnaire.

<sup>10</sup> The percentages of employed Gulf War I and Gulf War II women with a service-connected disability were not statistically different.



Figure 5.  
**Percentage Who Worked Full-Time, Year-Round  
by Veteran Status and Sex**



Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

All Gulf War-era veterans were also more likely to work full-time, year-round than nonveterans. The differences for women were especially striking. Seventy-five percent of Gulf War I women and 72.0 percent of Gulf War II women worked full-time, year-round, compared with 63.7 percent of nonveteran women.

Among the nonemployed population, a higher percentage of Gulf War II men (43.7 percent) had last worked in the past 12 months, compared with Gulf War I men and nonveteran men (33.3 percent and 30.0 percent, respectively). Forty-three percent of nonveteran men who were not currently working had last worked over 5 years ago, or never worked at all. Nonemployed women were more likely to have been out of work longer than nonemployed men. Thirty-nine percent of Gulf War I women and 52.4 percent of nonveteran women who were not currently working had last worked over 5 years ago,

or never worked. About 44 percent of nonemployed Gulf War II women had last worked 1 to 5 years ago.

### **OCCUPATIONS OF GULF WAR-ERA VETERANS**

Gulf War I men are the older of the two veteran cohorts, therefore it is not surprising that a higher percentage of those employed full-time, year-round worked in management occupations, compared with the Gulf War II men (12.1 percent compared with 8.9 percent) (see Figure 6).<sup>11</sup> The largest occupation group for Gulf War II men was protective service occupations. Thirteen percent of Gulf War II men worked in this category, which includes jobs such as police officers, sheriffs, security guards, and firefighters. This compares with 10.6 percent of Gulf War I men and 3.1 percent of full-time, year-round nonveteran men.

<sup>11</sup> The percentage of Gulf War I men employed in management occupations was lower than the percentage of nonveteran men.

Gulf War-era men were less likely to work in construction occupations and sales and related occupations, compared with nonveteran men. About 4 percent of both Gulf War I and Gulf War II men were employed in healthcare practitioners and technical occupations in 2011–2013, compared with 2.8 percent of nonveteran men.

About 20 percent of Gulf War I and Gulf War II female veterans who were employed full-time, year-round worked in office and administrative support occupations (see Figure 7).<sup>12</sup> This was also the largest occupation group for nonveteran women in 2011–2013 (22.4 percent). Where women differed significantly was in healthcare occupations. Over 15 percent of Gulf War I and Gulf War II women worked in healthcare practitioner and technical occupations, compared with 9.7 percent of nonveteran women. This category includes occupations such as physicians, surgeons, registered nurses, and medical assistants. A slightly higher percentage of Gulf War II women worked in healthcare support occupations (e.g., home health aides, medical assistants, pharmacy assistants) than Gulf War I women (4.6 percent compared with 3.3 percent).<sup>13</sup>

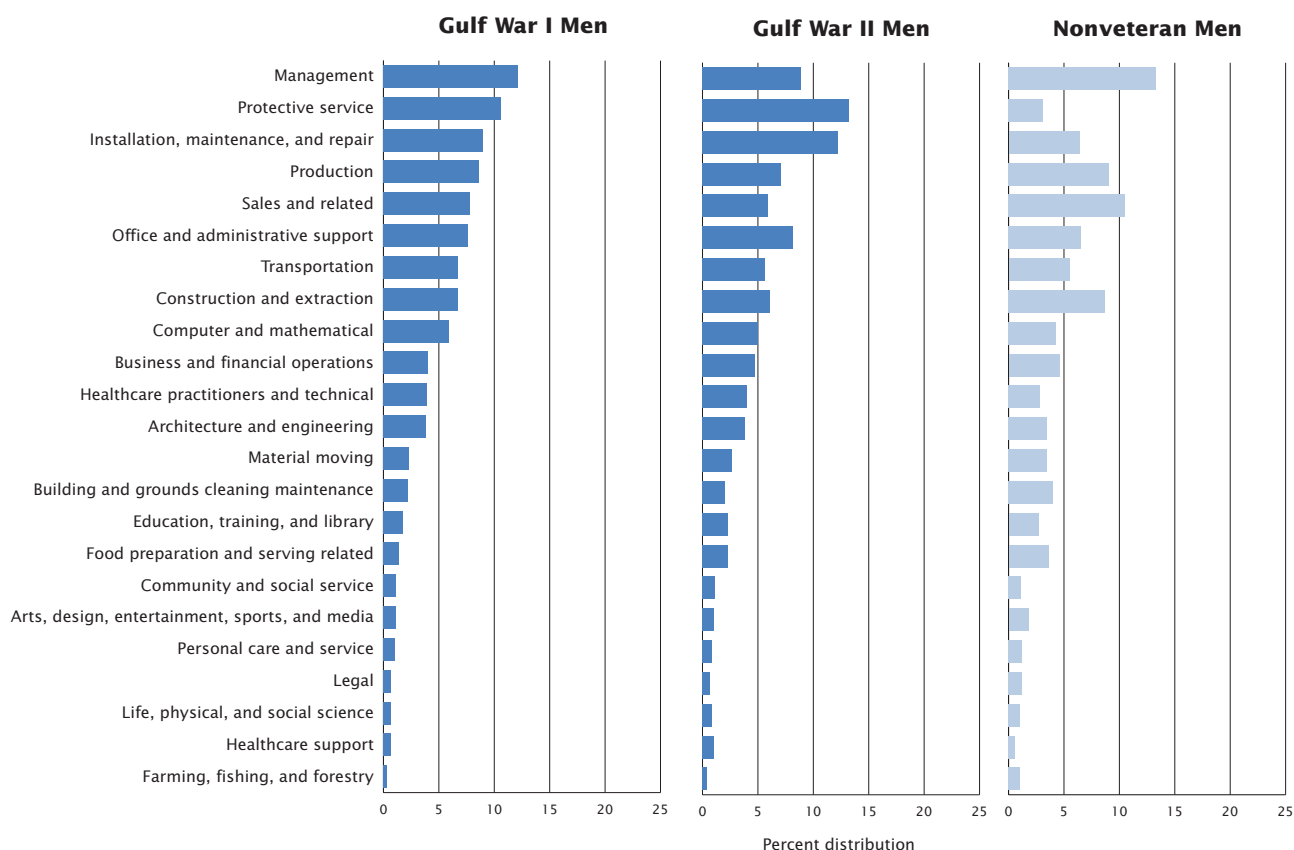
About 5 percent of Gulf War I and Gulf War II women worked in protective service occupations. While this was not nearly as common an occupation choice as it was for their male counterparts, it was significantly more common for Gulf War-era women than nonveteran women (1.1 percent).

<sup>12</sup> The percentage of Gulf War II women veterans in office and administrative support occupations was not statistically different from that of Gulf War I women veterans or nonveteran women.

<sup>13</sup> The percentage of Gulf War II women in healthcare support occupations was not statistically different from the percentage of nonveteran women.



Figure 6.  
**Men Employed Full-Time, Year-Round by Occupation and Veteran Status**



Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

One small but unique standout for Gulf War II women was installation, maintenance, and repair occupations. About 3 percent of full-time, year-round employed Gulf War II women worked in this category, which includes jobs such as computer, radio, telecommunication and electronic repairers, and automobile and aircraft mechanics and technicians.<sup>14</sup> These jobs may be similar to the jobs this cohort of women was doing while in the military. This was also the second largest occupation category for Gulf War II men.

<sup>14</sup> The percentage of Gulf War II women in installation, maintenance, and repair occupations was not statistically different from the percentages in production or food preparation and serving-related occupations.

Gulf War-era women veterans also had a slight edge in computer and mathematical occupations. About 3.5 percent of Gulf War I and II women who worked full-time, year-round were employed in this occupation category, compared with 1.9 percent of nonveteran women.

### STEM AND STEM-RELATED OCCUPATIONS

Interest in science, technology, engineering, and mathematics (STEM) education and occupations has increased in recent years. STEM occupations include a wide range of jobs such as analysts, researchers, scientists, and managers in computers and information

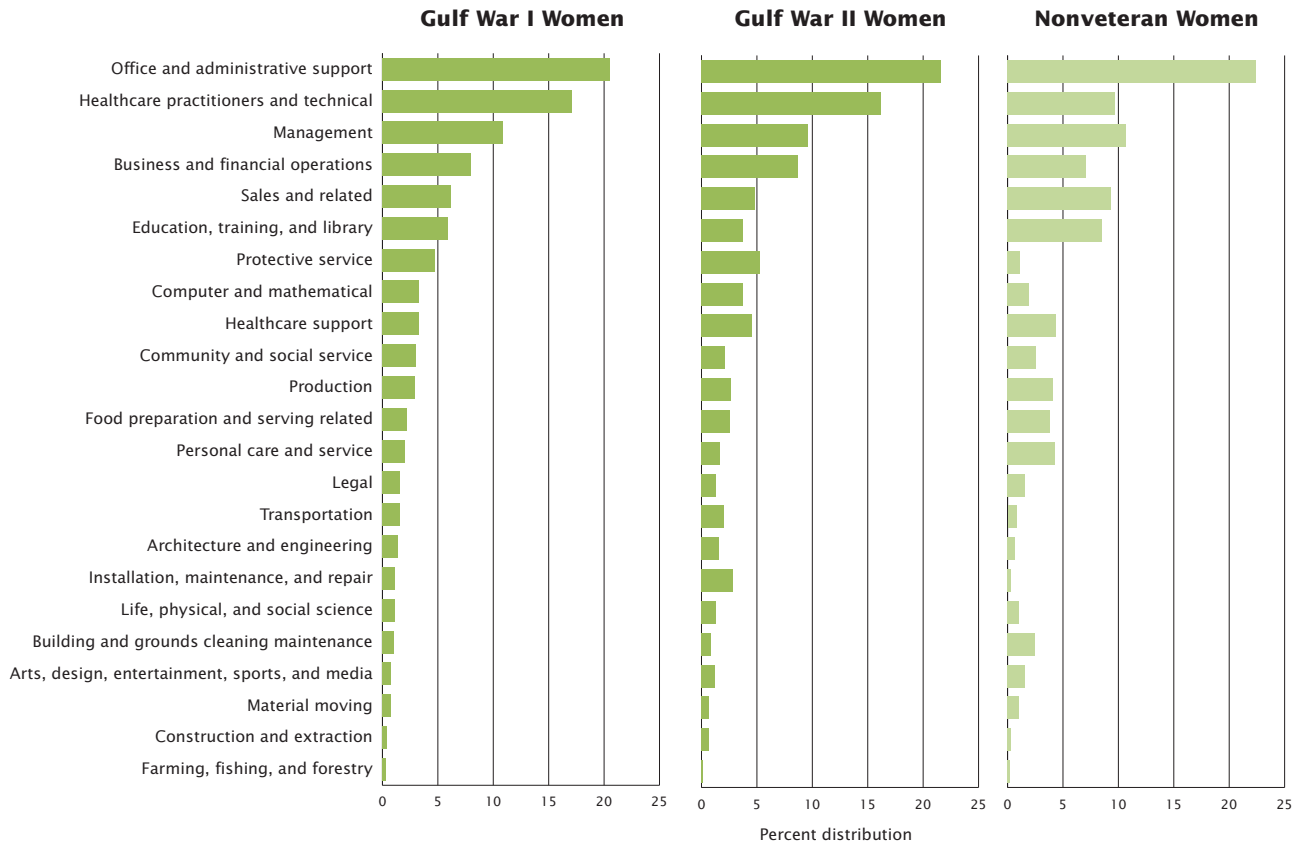
technology, life, physical, and social sciences.<sup>15</sup>

A higher percentage of Gulf War I men who worked full-time, year-round were employed in STEM occupations, 11.5 percent compared with 10.3 percent of Gulf War II men (see Figure 8). There was no significant difference between the percentage of Gulf War I and Gulf War II women who worked in STEM occupations. Both cohorts of Gulf War-era men and women were more likely to work in STEM occupations than their nonveteran counterparts. In the

<sup>15</sup> According to the Census Bureau occupation code list, there are 63 specific STEM occupations, 35 STEM-related occupations, and 437 non-STEM occupations (excluding military-specific occupations).

Figure 7.

## Women Employed Full-Time, Year-Round by Occupation and Veteran Status



Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

past several decades, the military has become more technologically advanced and service members from the Gulf War-era, particularly those serving post-9/11, may have worked with sophisticated communications systems, information technology, cyber terrorism, engineering, or even robotics during their time in service. The U.S. Army and the Army Corps of Engineers have a high-tech training program geared toward STEM occupations.<sup>16</sup>

STEM-related occupations are primarily architects, healthcare practitioners, and healthcare technicians. Women, in general, are

more likely to work in STEM-related occupations than men because of their concentration in healthcare. A higher percentage of Gulf War-era female veterans than nonveteran women had STEM-related occupations in 2011–2013 (see Figure 8).<sup>17</sup> This may be directly related to the types of jobs these women had while in the military. Historically, women in the military were restricted to certain occupations, one of the largest being nurses. Although Gulf War-era women have many more occupational opportunities available to them, there are still numerous military medical

occupational specialties available to enlisted and officer men and women in today's Armed Forces.

### SUMMARY

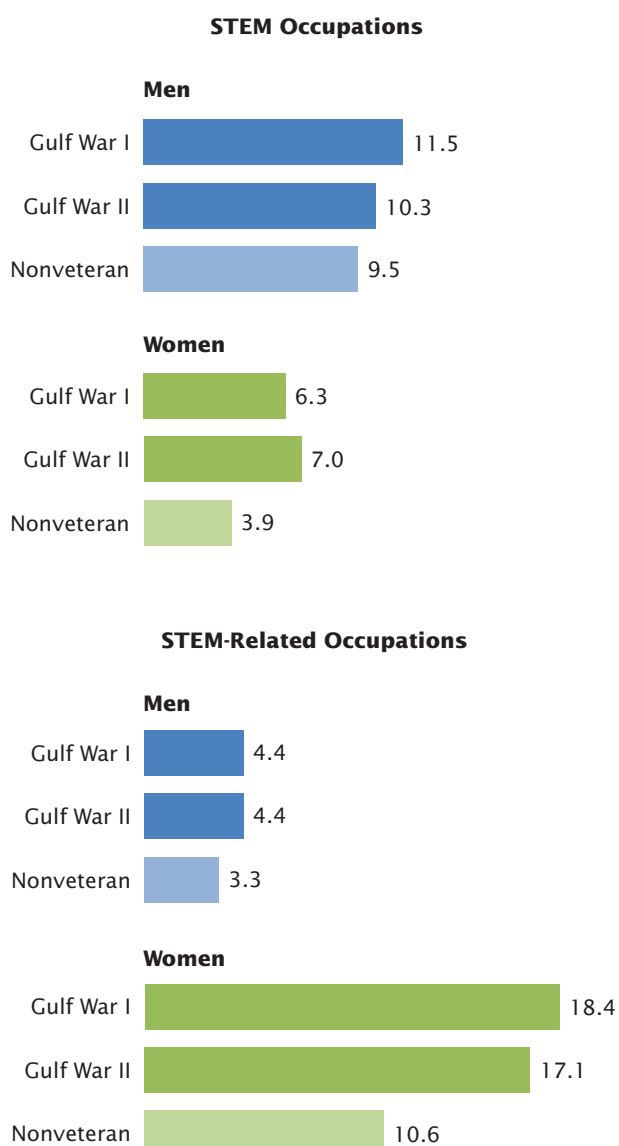
Post-1990 Gulf War-era veterans are a unique and growing population of veterans. They are more diverse in sex, race, and Hispanic origin than their predecessors. They had substantively different experiences in the military than earlier cohorts of veterans in terms of occupational opportunities that were available to them. They also differ greatly in age from the working-age non-veteran population, to which they are often compared.

<sup>16</sup> Please see <[www.goarmy.com/careers-and-jobs/stem.html](http://www.goarmy.com/careers-and-jobs/stem.html)>.

<sup>17</sup> The percentages of Gulf War I and Gulf War II women in STEM-related occupations were not statistically different.

Figure 8.

### Percentage Who Worked Full-Time, Year-Round in STEM and STEM-Related Occupations by Veteran Status and Sex



Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

Overall, a higher percentage of all working-age Gulf War-era veterans were employed in 2011–2013, compared with working-age nonveterans. Gulf War-era veterans, both men and women, were more likely to work full-time, year-round than their nonveteran counterparts.

Finally, the types of occupations held by Gulf War-era veterans who were employed full-time, year-round differed from those of nonveterans, and in many ways reflected the kinds of work they may have done in the military.

Many factors that are not explored in this report could account for the employment differences between veterans and nonveterans, including the interactions between age, race and Hispanic origin, citizenship, disability status, education, and selectivity bias of those who choose to serve in the military.

### MORE INFORMATION

For more information about veterans of the U.S. Armed Forces, go to the U.S. Census Bureau's Web site on veterans statistics at [www.census.gov/topics/population/veterans.html](http://www.census.gov/topics/population/veterans.html).

### SOURCE AND ACCURACY

Data presented in this report are based on people and households that responded to the ACS in 2011 through 2013, and are subject to sampling and nonsampling error. All comparisons presented in this report have taken sampling error into account and are significant at the 90 percent confidence level unless otherwise noted. Due to rounding, some details may not sum to totals. For information on sampling and estimation methods, confidentiality protection, and sampling and nonsampling errors, please see the "ACS Accuracy of the Data" documents for 2011–2013 located at [www.census.gov/acs/www/data\\_documentation/documentation\\_main/](http://www.census.gov/acs/www/data_documentation/documentation_main/).

### WHAT IS THE AMERICAN COMMUNITY SURVEY?

The American Community Survey (ACS) is a nationwide survey designed to provide communities with reliable and timely demographic, social, economic, and housing data for the nation, states, congressional districts, counties, places, and other localities every year. It has an annual sample size of about 3 million addresses across

Figure 9.

# **Reproduction of Veterans' Question Series on the American Community Survey**

**26** Has this person ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard? Mark (X) ONE box.

☐ Never served in the military → SKIP to question 29a

☒ Only on active duty for training in the Reserves or National Guard → SKIP to question 28a

☐ Now on active duty

☐ On active duty in the past, but not now

**27** When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for EACH period in which this person served, even if just for part of the period.

☐ September 2001 or later

☐ August 1990 to August 2001 (including Persian Gulf War)

☐ May 1975 to July 1990

☐ Vietnam era (August 1964 to April 1975)

☐ February 1955 to July 1964

☐ Korean War (July 1950 to January 1955)

☐ January 1947 to June 1950

☐ World War II (December 1941 to December 1946)

☐ November 1941 or earlier

**28** a. Does this person have a VA service-connected disability rating?

☐ Yes (such as 0%, 10%, 20%, ... , 100%)

☐ No → SKIP to question 29a

b. What is this person's service-connected disability rating?

☐ 0 percent

☐ 10 or 20 percent

☐ 30 or 40 percent

☐ 50 or 60 percent

☐ 70 percent or higher

Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.

the United States and Puerto Rico and includes both housing units and group quarters (e.g., nursing facilities and prisons). The ACS is conducted in every county throughout the nation, and every municipio in Puerto Rico, where it is called the Puerto Rico Community Survey. Beginning in 2006, ACS 1-year data for 2005 were released for geographic areas with populations of 65,000 and greater. Beginning in 2008, ACS 3-year data for 2005–2007 were released for geographic areas with populations of 20,000 and greater. Beginning in 2010, ACS 5-year data for 2005–2009 were released for all geographic areas. For information on the ACS sample design and other topics, visit [www.census.gov/acs/www](http://www.census.gov/acs/www).

**Appendix Table.****Margins of Error for Characteristics of the Employed and Nonemployed Populations by Sex and Veteran Status**

(Civilian noninstitutionalized population 18 to 64 years old. Data based on sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see [www.census.gov/acs/www](http://www.census.gov/acs/www))

Characteristics	Men						Women					
	Gulf War I		Gulf War II		Nonveteran		Gulf War I		Gulf War II		Nonveteran	
	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed	Employed	Non-employed
<b>Total population, 18 to 64 years old . . .</b>	<b>10,340</b>	<b>4,280</b>	<b>13,040</b>	<b>7,000</b>	<b>50,270</b>	<b>45,250</b>	<b>5,210</b>	<b>2,280</b>	<b>5,580</b>	<b>3,730</b>	<b>52,260</b>	<b>47,110</b>
<b>AGE</b>												
18 to 24 years . . . . .	0	0	0.3	0.7	0.1	0.1	0	0	0.7	1.3	0.1	0.1
25 to 34 years . . . . .	0.4	0.8	0.5	0.7	0.1	0.1	1.0	1.6	0.9	1.5	0.1	0.1
35 to 44 years . . . . .	0.5	1.0	0.3	0.6	0.1	0.1	1.4	2.0	0.9	0.9	0.1	0.1
45 to 54 years . . . . .	0.4	0.8	0.2	0.4	0.1	0.1	1.0	1.2	0.4	0.6	0.1	0.1
55 to 64 years . . . . .	0.1	0.5	0.1	0.2	0.1	0.1	0.5	0.8	0.2	0.3	0.1	0.1
<b>Median age . . . . .</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>
<b>SCHOOL ENROLLMENT</b>												
Enrolled . . . . .	0.2	0.9	0.4	0.8	0.1	0.1	0.8	1.5	1.0	1.6	0.1	0.1
Not enrolled . . . . .	0.2	0.9	0.4	0.8	0.1	0.1	0.8	1.5	1.0	1.6	0.1	0.1
<b>EDUCATIONAL ATTAINMENT</b>												
High school graduate or less . . . . .	0.4	1.1	0.4	0.7	0.1	0.1	0.8	1.8	0.7	1.0	0.1	0.1
Some college . . . . .	0.5	1.1	0.5	0.8	0.1	0.1	1.3	2.2	0.9	1.1	0.1	0.1
Bachelor's degree . . . . .	0.4	0.7	0.3	0.5	0.1	0.1	1.0	1.5	1.0	1.0	0.1	0.1
Advanced degree . . . . .	0.3	0.5	0.2	0.2	0.1	0.1	0.8	1.1	0.6	0.6	0.1	0.1
<b>DISABILITY STATUS</b>												
Has one or more disabilities . . . . .	0.2	1.0	0.2	0.7	0.1	0.1	0.5	1.7	0.4	1.0	0.1	0.1
No disability . . . . .	0.2	1.0	0.2	0.7	0.1	0.1	0.5	1.7	0.4	1.0	0.1	0.1
<b>SERVICE-CONNECTED DISABILITY STATUS</b>												
Has a service-connected disability . . . . .	0.3	1.0	0.4	0.9	X	X	1.0	1.7	0.9	1.2	X	X
No service-connected disability . . . . .	0.3	1.0	0.4	0.9	X	X	1.0	1.7	0.9	1.2	X	X
<b>WORK STATUS</b>												
Less than full-time, year-round . . . . .	0.4	X	0.3	X	0.1	X	1.0	X	0.8	X	0.1	X
Full-time, year-round . . . . .	0.4	X	0.3	X	0.1	X	1.0	X	0.8	X	0.1	X
<b>WHEN LAST WORKED</b>												
Within past 12 months . . . . .	X	1.0	X	0.8	X	0.1	X	1.8	X	1.5	X	0.1
1 to 5 years ago . . . . .	X	1.2	X	0.7	X	0.1	X	1.6	X	1.3	X	0.1
Over 5 years ago or never worked . . . . .	X	1.0	X	0.7	X	0.1	X	1.7	X	1.4	X	0.1
Last job was military <sup>1</sup> . . . . .	X	0.3	X	0.7	X	X	X	0.4	X	1.0	X	X

X Not applicable.

<sup>1</sup> Based on the industry of those who worked in the past 5 years.

Source: U.S. Census Bureau, American Community Survey, 3-year estimates, 2011–2013.